

Amendments of the Specification:

Please replace paragraph [0001] with the following amended version of that paragraph:

[0001] This ~~ease~~ application is being filed together with co-pending U.S. Patent Application No. ~~___/___,___~~ 10/796,502, entitled, "Systems and Methods for Reducing Static and Total Power Consumption in Programmable Logic Device Architectures", which is hereby incorporated by reference herein in its entirety.

Please replace paragraph [0033] with the following amended version of that paragraph:

[0033] This arrangement is further illustrated by the table to the left of FIG. 4. The table indicates which input values are fixed for three different XOR combinations 450, A^B , A^D , and C^D . The number of transistors which may be configured to have drains and sources with the same voltage potentials because the transistors are unused for the particular XOR configuration -- i.e., do not change over the course of operation of the circuit -- is shown at 452. It can be seen that the greatest number of unused transistors is associated with the C^D XOR gate. The different possibilities of input combinations 454 are shown at the left. It should be noted that all unused inputs in the combinations 454 shown are tied to ground.

Please replace paragraph [0036] with the following amended version of that paragraph:

[0036] The following is another example of technology mapping according to the invention. In the case of a LUT3 having three inputs 504, 506 and 508, (A, B, and C, respectively), shown in FIG. 5, and a function $A \text{ OR } (B \text{ AND } C)$, the number of transistors with the same voltage on the source and drain is 2 (as shown in the following table). Given the logically equivalent function created by rotating

the inputs of C OR (A AND B), the number of transistors with the same voltage on the source and drain is 8. Thus, the methods according to the invention suggest that when generating different mapping alternatives, the power should be compared in addition to the density and speed.